



MPA Baseline Program

Annual Progress Report



Principal Investigators - please use this form to submit your MPA Baseline Program project annual report, including an update on activities completed over the past year and those planned for the upcoming year. This information will be used by the MPA Baseline Program Management Team to track the progress of individual projects, and will be provided to all MPA Baseline Program PIs and co-PIs prior to the Annual PIs workshop to facilitate discussion of project integration. Please submit this form to California Sea Grant when complete (sgreport@ucsd.edu, Subject [Award Number, project number, PI, "Annual Report"].)

Project Information

Project Year: Year 1: Sept. 1 2012 – Aug. 31 2013 Study Region: South Coast

Project Title & Number: R/MPA-29 10-049: Establishing Consumptive and Non-Consumptive Human Use Baseline Indicators for MPAs in the South Coast of California

PI name: Dr. Kristen Sheeran (formerly A. Scholz) Co-PI name: Charles Steinback

PI Contact Info Co- PI Contact Info (please list additional PIs and contact info in the "Project Personnel" section if necessary)

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Project Goals & Objectives

The primary goal of this effort is to establish a baseline of human uses of the coastal and marine ecosystem and the South Coast marine protected area (MPA) network and to the extent possible assess initial changes in human use patterns since MPA implementation. To do this, we will 1) create a baseline characterization of human use patterns in the South Coast region; and 2) assess initial changes in interactions between human uses of the coastal ecosystem since MPA implementation. The objectives of this research are to:

- 1. Collect detailed data on the a) demographic characteristics; b) spatial use patterns; and c) economic contributions of California's South Coast region consumptive and nonconsumptive coastal and marine user communities;
2. Create baseline estimates of the quantity, composition, spatial distribution, and economic contribution of coastal and marine human use activities in the study region;
3. Conduct an assessment of changes in consumptive activities since MPA implementation and compare the results to the baseline estimates;
4. Describe the initial spatial response in commercial fishing uses;
5. Integrate estimates of change with ecological indicators of MPA performance; and
6. Inform the planning and implementation of long-term monitoring through the development of key human use monitoring metrics/indicators.

## Summary of Project Activities Completed to Date

### Overview of Project Year 2 Activities, including progress towards meeting goals & objectives

Progress towards meeting our project goals and objectives are reported below in the separate project components:

#### **Commercial fishing sector:**

As mentioned previously in our last annual report, the project initially was delayed due to lack of broad based support for the socioeconomic monitoring project. In particular fishermen were very hesitant to support or participate in a project that collected spatial fishing data in fear the data would be used to further restrict their ability to fish. In Year 2 Ecotrust continued to conduct outreach in partnership with the Monitoring Enterprise and Strategic Earth to address fisherman concerns/questions on the socioeconomic data collection project and on the overall monitoring effort. In Year 2, Ecotrust also convened a peer review of our proposed data collection methods and survey design with key fishery social scientists who are trusted by the fishing community. Together, these two efforts helped ensure we were applying robust methods in our project but also helped build trust and confidence in our project with key fishing community leaders. With these two efforts we were able to obtain project support from fishing communities and moved forward with preparing for field work. In spring 2013 we completed developed of the survey instrument, hired and trained field staff, and prepared all field work materials. We began field work in July 2013 and as of the end of August 2013 we completed approximately 80 interviews with commercial fishermen across the region. We plan to complete data collection at the end of October 2013. In addition to the collection of original data, in Year 2 we obtained CDFW commercial landings data from 1992 to 2012 and have summarized data into port and fishery profiles to include in the final report. In Year 3 we will review this data with the commercial fishing community, along with survey and spatial data collected, to help us interpret data analysis results.

#### **Commercial Passenger Fishing Vessel (CPFV) sector:**

The CPFV fishing community was also reticent to participate in the socioeconomic monitoring project for similar reasons to those expressed by the commercial fishing community. To date, the CPFV fishing community remains hesitant to participate despite numerous conversations between key leaders and Ecotrust and the Monitoring Enterprise. The Monitoring Enterprise is continuing conversations with the CPFV fishing community to assess if CPFV operators are willing to participate in alternative capacities such as reviewing CPFV logbook data results. Ecotrust project staff are continuing to work with CDFW to obtain CPFV logbook data and we anticipate receiving the data in September 2013. Project staff will then summarize and analyze the CPFV logbook data, and work with the Monitoring Enterprise to assess the willingness of the CPFV fishing community to review this data and help interpret the data analysis results.

#### **Non-consumptive coastal recreation sector:**

The survey instrument for this project component was launched the beginning of 2012 and was deployed in four waves over the course of a year. The survey was completed in spring 2013 and collected data from approximately 4,500 respondents on their coastal recreation spatial use patterns and trip expenditures. In year 2 we created an extensive work plan to analyze this data and have begun data analysis work. Additionally, Ecotrust project staff attended an MPA Watch peer review meeting and have been networking with other MPA monitoring programs capturing coastal recreation data to coordinate efforts. This will ensure complementary efforts across groups doing related work.

#### **Integrative analyses:**

At the beginning of 2013, project staff attended the annual California Sea Grant PI meeting to advance plans for integrative analysis work. During this PI meeting staff learned details on the data that will be available for analysis and brainstormed many promising ideas of how data across baseline monitoring projects may be used to provide a more complete picture of the state of Southern California's MPA system.

*Highlights from project progress so far, such as successes achieved, new collaborations or partnerships, or interesting stories from the past year that may be suitable for a blog post or other media venue*

In Year 2 we successfully completed the coastal recreation survey effort which has collected over 4,500 survey responses. The results from this survey effort will provide a much-needed spatially explicit baseline estimate of coastal recreation patterns across Southern California, as well as estimates on the economic contribution (through estimates of trip expenditures) of coastal recreation overall and specific activities. This type of information will be critical to gather over time in order to estimate the economic benefits of MPAs, such as the value of changes in environmental attributes/ecosystem service that drive coastal recreation use patterns in a given place.

During 2013, project staff served as a peer reviewer of methods utilized in MPA Watch programs that collect coastal recreation use data inside and outside MPAs in California. The baseline data collected in this project will be of particular use to the MPA Watch programs as it estimates general coastal recreation use patterns across the entire Southern California region. This can be used to weight and combine MPA Watch data across different sites/programs to provide a more cohesive and in-depth picture of coastal recreation use within the MPA system. The MPA Watch peer review meeting was very useful to network with other coastal recreation data collection programs to ensure our efforts will be complementary and can build upon each other to better understand coastal recreation use patterns in Southern California.

*Description of any unforeseen events and substantial challenges, and resulting effect on project activities and progress. Please indicate any issues that may affect other PI's or require coordination with other Baseline partners (e.g., ME, DFG, Sea Grant).*

As mentioned above, gaining broad project support from the CPFV fishing community has been challenging. We are working with the Monitoring Enterprise and the CPFV fishing community to determine what project work is possible to carry out to establish a baseline of CPFV use in the region. Furthermore, based on feedback received from the commercial fishing community, it was made clear that fishermen do not want to participate in two years of data collection. In consultation with the Monitoring Enterprise, we have modified our proposed project work to reflect this as one year of data collection will suffice to establish a baseline and assess initial changes. Ecotrust project staff submitted a project modification and rebudget request July 10, 2013.

*Data status (i.e., paper/raw format or digitized; if digitized, what format?)*

All data collected to date is in raw digital format—both as ArcGIS files and Microsoft Excel files.

**Activities Planned for following Project Year 3 (if applicable) – Please describe remaining work and approximate timelines for completing that work, including any anticipated budget variances necessary to complete the project.**

In project year 3, we will be completing all remaining project work. Project work to complete includes:

1. Commercial fishing sector
  - a. We will complete data collection at the end of October 2013. At that time we will edit spatial data, send individual spatial data for each fisherman to review, analyze the spatial data, and conduct a spatial change analysis. We will hold meetings to have the fishing community review the survey data, spatial data, and CDFW landing data to help us interpret data analysis results. We will also complete the final report for the commercial fishing sectors which will document methods and provide a baseline and assessment of initial changes in the commercial fishing sector.
  - b. Pending approval of the project modification request, project staff will begin to carry out the additional project component proposed: assessing the feasibility and design specifications of a digital long term monitoring solution that will provide a cost-effective way in which to continually collect monitoring data from commercial fishermen that both meets fisherman and MPA monitoring/research data and access needs.
2. CPFV sector
  - a. We hope to soon have clarity on what project work will be possible to conduct with the CPFV fishing community. In the meantime, project staff will obtain CPFV logbook data from CDFW and begin summarizing logbook data to provide historical trends, pre MPA baseline estimates, and initial changes since MPA implement in the number of CPFV vessels, anglers, and fish caught at the region and port levels.
3. Non-Consumptive Coastal Recreation
  - a. We will complete all analyses of the coastal recreation data to establish a spatial and economic baseline of coastal recreation use in the southern California. We will complete a final report documenting methods and summarizing results.
4. Integrative analysis
  - a. This integrative analysis effort is led by Jenny Dugan and Carol Blanchette of UC Santa Barbara. We will participate in scheduled integrative analysis meetings to be held in January and March 2013 to provide data and any analyses needed to present an integrative picture of the South Coast MPA system.

**Project Personnel – Please indicate additional project personnel involved in your MPA baseline project, including students and volunteers, or additional PI contact information if necessary.**

	<i>Students Supported</i>	<i>Student Volunteers</i>	<i>Nature of Assistance</i>
<i>K-12</i>	N/A	N/A	
<i>Undergraduate</i>	N/A	N/A	
<i>Masters</i>	N/A	N/A	
<i>PhD</i>	N/A	N/A	

Number of other Volunteers not counted above:

N/A

Additional PI contact info not listed on first page:

N/A

**Cooperating Organizations and Individuals** - Please list organizations or individuals (e.g., federal or state agencies, fishermen, etc.) that provided financial, technical or other assistance to your project since its inception, including a description of the nature of their assistance.

<i>Name of Organization or Individual</i>	<i>Sector (City, County, Fed, private, etc.)</i>	<i>Nature of cooperation (If financial, provide dollar amount.)</i>
California Department of Fish and Wildlife	State	Provided landings data and guidance on landings data analysis
South Coast Fishing Community: Bob Bertelli; Pete Halmay; Josh Fischer; John Law; Ken Franke; Chris Hoeflinger; Rodger Healy; Dave Rudie; Stephanie Mutz; Chris Voss; Bruce and Diane Pleschner-Steele; Pete Duplee	Private	Provided project feedback, review of survey design, feedback on project direction, information on community attitudes/perceptions towards MPA monitoring effort, and recommendations on how best to approach other fishermen in the region.
Strategic Earth Consulting	Private	Worked with Monitoring Enterprise/OST and Ecotrust to conduct targeted fishing community outreach to build support the overall MPA monitoring effort which helped Ecotrust's efforts to gain support for our project.
Carrie Pomeroy; Barbara Walker; and Ana Pitchon	State/Private	Conducted a peer review of our commercial and CPFV survey and data collection methods and landings data analysis methods.

**Additional Information** – Please provide any other project-relevant information, such as descriptions of attached materials, media coverage your project has received, etc.

Ecotrust is currently awaiting a status notification a project modification and rebudget request submitted for review by Sea Grant.